

Research and Development on an Internet Q&A Platform for Corporate Innovation and Management

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Abstract:

This paper analyses and develops an online platform for innovation and management cooperation that benefits small and medium-sized enterprises (SMEs) through enhanced cooperation and support. Helping SMEs to adapt to market changes and promote internal improvements. With limited access to information and cutting-edge technologies, SMEs often struggle to solve identified problems. We use a web-based platform to help SMEs find problems and solutions. Through market analyses and BCG Matrix analyses we delved into the feasibility of the platform as well as developed innovative features.

Keywords: Digital Platform, Small-and-Middle Companies, Information Exchange, Management Consultancy.

1. Introduction

Nowadays, there are many people use social community application. For instance, just like Zhihu. [7] Most of them such as companies and enterprises use social community platform to search for information. However, according to the current market environment, large enterprises occupy the majority of the market size. SMEs can't pre-empt enough market shares to survive. SMES cannot solve or find their problems because they lack access of information and management system and mode. So a tool to help them improve their management models and access information is very important. This platform is primarily used in small and medium-sized businesses because SMEs lack access to information. This platform can serve as an intermediary of information source and access to help small and medium-sized enterprises to understand the management system, management mode, management software and other related tools of information.

Additionally the platform can also help SMEs to consult with experts or large companies to complete accurate information acquisition. We are trying to understand if our platform can help SMEs with their management and operational problems. In this paper, we have focused on the size of today's SMEs and the trends in today's market. In this market we do not know how SMEs are accessing information and how little SMEs are utilizing digital platforms to achieve peer-to-peer communication of solutions

to management problems. Our article is organized as follows. Firstly, we show our literature review and introduce our digital platform. Then we briefly describe the methodology of our study, and the data collected for analysis. We made focus groups to help us analyse the market size as well as consider the competitors for this platform. Then we use the analysis to improve our website. Finally, we conclude the paper with some closing remarks and solutions.

2. Literature review

Developing digital platforms is becoming increasingly important as small and medium-sized enterprises (SMEs) struggle to overcome difficulties associated with limited management and access to expertise. Neill and Brown [1] emphasize that SMEs often struggle to access timely and relevant information that is critical for innovation and competitiveness in modern markets. Johnson and Liu [2] further explore this challenge by noting the growing demand for targeted advisory services, especially those that are cost-effective and accessible through digital means.

The evolution of these platforms marks a shift from traditional consulting models to more novel, innovative ones. Vasiljeva and Lukanova [3] discuss how digital platforms can enable SMEs to tap into a global network of experts, thereby enhancing their ability to innovate and compete on a wider scale. Furthermore, Susskind, R., & Susskind,

D [4] emphasize that integrating technology into professional services not only reduces costs, but also improves the quality and accessibility of expertise available to SMEs.

Furthermore, the strategic management of these platforms has been influenced by tools such as the BCG Matrix. [5] Henderson[6] proposed this framework to help firms assess their operations and it remains relevant in assessing the growth and potential of digital platforms.

In summary, the literature emphasizes the growing importance of digital platforms in supporting SME innovation and management. These platforms have evolved to provide more accessible, cost-effective, and high-quality consulting services, helping SMEs navigate the complexities of modern markets.

3. Concept building

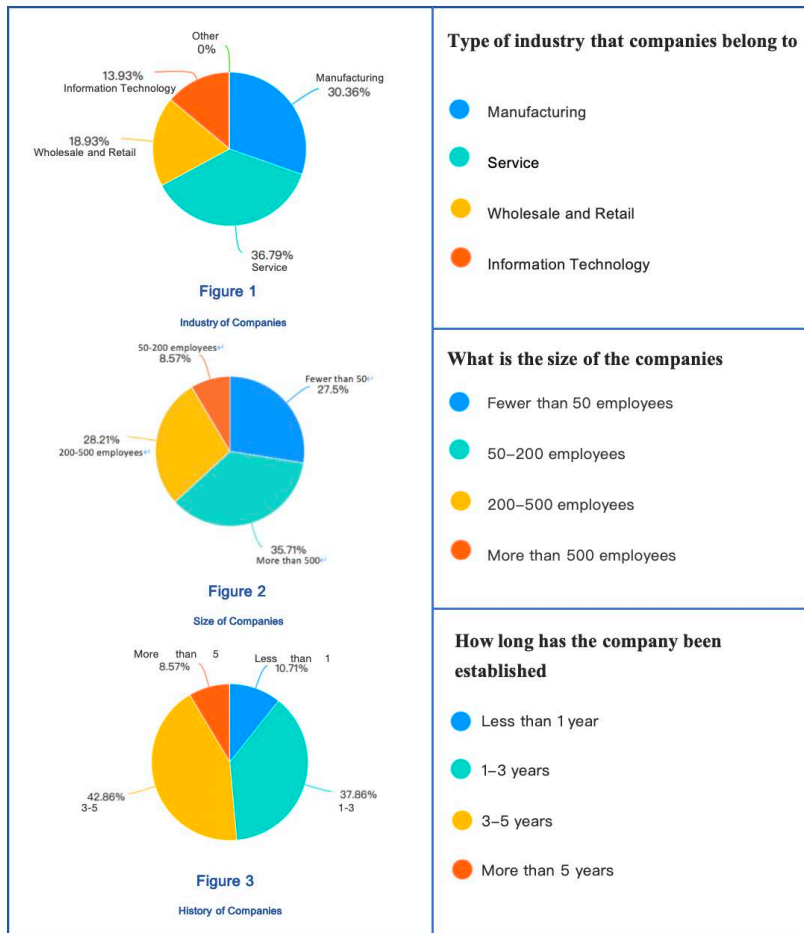
3.1 Platform Building

The research we devote ourselves to is related to an online platform. And this platform is actually the product that our study produced. In the hypothesis we are going to find a way to solve problems of SMEs, and we find the biggest

difficulties are lack of resources and they could not find where the problem is. So that we built a platform to help SMEs check of their own issues and find solutions in a low cost. And we conduct the front-end development and finish the building of the main structure of the forum website, and collect enough data for the initial research by the preliminary functions we developed, here the functions:

1. Built a bridge between the seeker and offer of the information
2. Provide support for the scholars on looking for theoretical practice
3. Offer a platform to promote communicate between SMEs, and make market acquisition more possible by co-operation.

This is a web-based cloud platform that we have conceived based on initial market needs and our own technical capabilities. Based on the database and the forum-style website, we will develop a website designed to serve our platform, which may be expanded into an application in the future. In order to fulfil our needs, the site will include tiered accounts, different application sections and the ability to post replies and top comments.



3.2 Methods section

In the changing scenario of recent years, a variety of platform-based technologies have emerged, with medium and large enterprises occupying almost the majority of the market share. The purpose of our research is to help small and medium-sized enterprises (SMEs) connect to this international and modernized environment. We conducted a series of initial market research to understand the current situation of some SMSEs, and the results showed that the majority of the participants in the research belonged to the category of SMEs, and already had certain information collection channels and information collection capabilities. This result (graph below) centrally reflects that SMEs have the most basic ability and accumulation of information exchange with other enterprises. According to the survey data, a considerable number of companies already have a certain way of collecting management information, but the vast majority of enterprises focus on the collection of data and information, as well as the grasp of market dynamics, and we are committed to the development of the platform is only part of the functionality of the overlap. Meanwhile, the majority of firms (about 59.29% and 56.79%) mainly use industry associations and professional consultants,[2] while some firms (about 48.57% and 45.72%) use online trainings and seminars to obtain specialized knowledge and information. This is consistent with our hypothesis that the vast majority of firms' access to information is through a single platform provider, and that individual consultancies or platforms are not the best choice for the P2P model, but rather more of a B2B matchmaking model. Especially for the vast majority of SMEs, B2B is not the best option. On the contrary, our platform focuses on providing P2P solutions for companies. Since we only act as a medium for information exchange and solutions, companies can find the resources they need most, including human resources and information resources, at a very low cost. This customized communication channel can also help SMEs quickly adapt to the modern market environment and find ways to update their management models. Against the background of this survey, we are confident in the market prospects of the platform, which has led to the development of our subsequent study.

4. Market Research

4.1 Initial market exploration

First of all, the market of management consultancy is keeping increase, and there is about a 30 million companies market of SMEs. And 81.43 percentage of this market have demand for management consultancy, is about 24.43

million companies in this market.[8] With a potential market size of up to 300 billion RMB, and a calculated initial market share of 2-3%, we can reach a revenue size of 6-9 billion RMB, and with our revenue model of a 10% commission, we will be able to contribute 6-9 billion RMB to the potential market. And our initial goal is to collect as much market share as we can in this immensely large market. In the early stages, we made initial assumptions about the market we were about to enter, including the fact that most SMEs do not have the ability to solve their own operational problems and have difficulty in identifying their own problem areas.

At the same time, due to the poor information, most SMEs are not aware of mainstream and cutting-edge management system, and they are unable to keep abreast of what management and operational improvements are needed in the new environment since the Fourth Industrial Revolution. Therefore, the platform we are working on has a clear marketing plan, which is to help SMEs find out what they are facing, even if they don't know what they are facing. We also provide solutions to those who are aware of the problems they are facing, or who are able to identify them on our platform. As many companies do not have the ability to engage in P2P consulting with medium to large consulting firms, our main competitors in the market will be smaller consulting firms and online consulting service platforms. In order to explore the obstacle we may encounter in this market, we conducted a Focus Group with practitioners and executives from a number of industries, including the media industry, automotive manufacturing, energy efficiency and environmental protection, telecommunications, detection and testing, and technical services. During the group discussion, according to the suggestion of a manager of the technical service industry, who works in a medium-sized EPC general contracting company, there are many service platforms in the niche industry, whose main business is to provide various kinds of cutting-edge information and customize services in the industry. The biggest similarity between these small service platforms and us is that they can precisely provide P2P personalized services, however, their model of using the platform itself as an information repository determines that they will not be able to cover a large scope. At the same time, we are able to effectively reduce the cost of consultation. It is inevitable that the utility of P2P cannot be fully realized due to the inability to conduct on-site visits, but we can definitely be the best choice for SMEs due to multiple discussions and better technical resources.

4.2 Existing State of the Market

After an initial exploration of the market, we explored the mainstream platforms in the market, i.e. companies

that could become our competitors. Currently, the mainstream companies include CYZONE[9] , IYIOU[10], HUXIU[11], etc. CYZONE's business direction includes providing SME entrepreneurs with communication and consulting opportunities, where users can ask questions related to entrepreneurship directly, and other users can share their experiences and answers. However, the platform is facing transformation recently, and the mainstream topic direction of the website tends to be current affairs, business and hot topics, and the proportion of entrepreneurial consulting has been greatly reduced. IYIOU's marketing direction is to enhance the corporate brand image and help enterprises expand resources, and is currently centred on market promotion and field seminars. As for HUXIU website, it focuses more on bringing together professionals in the industry, combining industrial practice and expert research to help enterprises with digital modernization and transformation. However, in the new round of practice, we notice that HUXIU focuses most of its energy on social culture and social hotspots. From the above data, it is easy to find that in the current market environment, most of the platforms that used to focus on business, management or market information have shifted to social media and media platforms with the advantages of the platform itself. We have consolidated the business status and development concepts of many platforms, and further developed and researched our platform based on the known market environment.

4.3 Market advantages of the platform

Our platform can help small and medium-sized enterprises (SMEs) to solve their problems through p2p. Small and medium-sized enterprises are faced with the problem of insufficient resources and defective management mode. [1] In today's market small and medium-sized enterprises most of the tools used to find information is provided directly by the website, the effectiveness and authenticity of the information is a little bit of examination. This platform provides direct and accurate information directly from other scholars or experts. Market data shows that there is a growing demand for targeted consulting services for SMEs, especially when resources are limited.[2] Seeking help offline can lead to higher costs and lower efficiency, which this platform does a good job of avoiding. Our platform reduces the intermediate steps and high costs of traditional consulting by connecting experts online, making professional consulting affordable and beneficial to more SMEs.

The platform's strength lies in its huge resource base. Firstly, this platform able to accurately identify the enterprise's problems and recommend the most suitable scholarly resources. Secondly, the platform has a huge

number of scholars covering top professionals in various industries, ensuring that SMEs have access to high-quality consulting services. In addition, the platform's user interface is designed to be simple and concise, enabling SMEs to find the services they need easily and quickly. These functional advantages enable the platform to have significant competitiveness in the SMEs consulting market.

5. Market Development

5.1 Development based on market research

Based on the refinement of the initial conception of the platform, we constructed a forum-like, website-based platform based on user postings and responses. The main body of the platform consists of three parts, the first of which includes information exchange and discussion between companies. The second part focuses on linking experts and scholars with SMEs to provide P2P services. The third part is a kind of experimental innovation provided to scholars who have innovative ideas and cannot find who to implement them, and those entrepreneurs who have the spirit of innovation.

1. In the first part, this will already be a very mature red ocean market. As far as most companies are concerned, they already have very mature information exchange channels. In our research, 34.29% of people believe that their companies have a very timely and accurate information collection channel, and a total of 67.15% of business employees believe that they have an accurate information exchange channel. In this research background, the first part of our platform will be more as our second and third part of the function of the auxiliary, rather than as the main means of our market development.

2. In the development of the second part of the function, our main consideration is the cost bearing and the access of experts. Through our in-depth survey of 280 SMEs, from the point of view of the enterprise scale, most of the SMEs have less than 200 employees, which accounts for as high as 63.21%. Meanwhile, the survey results show that 81.43% of the enterprises think that lack of capital is the main obstacle, 83.21% think that lack of professional guidance is the main obstacle, and 78.21% think that the imperfect management mode is the main obstacle. The vast majority of enterprises consider lack of capital and professional guidance as the main obstacles. This shows that SMEs need capital and professional guidance in their development. Therefore, how to avoid the high cost, prompting the various scale consulting platforms to become our competitors becomes very important issue. on the other hand, to avoid the lack of capital and imperfect management model of these two problems conflict with each other is also the necessary premise of the establish-

ment of the theory of our platform. Since this is already a mature red ocean market, we have to reduce the cost and make our own innovation point, in anticipation of the expert effect and the third part of the market innovation will become the breakthrough of the family.

3. The development of the third part is based on the understanding of the current situation of the academic field, for many masters and doctors, what they lack is mainly first-hand data, as well as theoretical practice. The platform we build can provide a place for them to announce their theoretical innovations and attract entrepreneurs to practice through excellent design. This will be a new blue ocean market. The advantage we have is that our platform is characterized by attracting a large amount of traffic from SMEs, so there is a high probability that academics' theories will be captured by people who really need and understand them. In order to be able to improve the matching efficiency and to avoid an excessive amount of useless information as well as mismatches, we have designed a system of accounts.

5.2 BCG Matrix Evaluation

For strategic analysis and subsequent development of the platform, we introduced the BCG Matrix (Boston Matrix), a tool developed by the Boston Consulting Group (Boston Consulting Group) for enterprise portfolio management, into the platform building process. It helps companies to evaluate and analyse their business units or product lines through the two dimensions of market growth rate and relative market share, so as to formulate corresponding strategies.

Components of the BCG Matrix:

- Stars: high market growth rate and high relative market share. These business units usually require significant investment to maintain their growth.
- Cash Cows: Low market growth rates, high relative market share. These business units usually generate a steady cash flow to support the rest of the company.
- Question Marks: High market growth rates, low relative market share. These business units may require significant investment to increase market share or should be considered for exit.
- Dogs: Low market growth rates and low relative market share. These business units typically underperform and may need to be divested or exited from the market.

5.3 Product Analysis

As our Stars business, the third part of our functionality is particularly important and therefore our subsequent development focus will be primarily on this aspect of our development. While the second part of our business cor-

responds to our Cash Cows business, the first part of our business, Questions marks business, will be the centre of revenue focus in the future.

First, although the first part of the matrix image calculation is the main Stars business, due to the immaturity of its market needs to be developed for a longer period of time, while the two outside two segments due to its mature scale of the vast market, will become our Stars business in the future to make achievements in the main source of financial support. In order to cope with this situation, our account system will be designed to focus on the user groups of the first and second segments. These include experts (information providers) and entrepreneurs (information users), as well as those who share the company's presence and want to find out what their problems are.

Second, information provider accounts will require special real-name authentication, as well as strict auditing to ensure that experts are capable of providing appropriate solutions to problems before becoming qualified information providers. For experts and scholars accounts will be divided into two levels, the first level is the need to pay to receive advice on professional groups accounts, this category focuses on targeted analysis and solve the complexity of the enterprise is difficult to deal with the problem. This type of information is especially in demand by medium-sized companies. The other type of account is the primary account, the basic requirement is to have a certain academic ability, there will not be too harsh audit. They are free to give advice to entrepreneurs seeking help on the platform or to identify their dilemmas. Entrepreneurs and academics can jointly rate these junior consultancies as either pro or con. This will greatly improve the efficiency of the consulting process and the accuracy of client matching, as well as solving the cost problem faced by SMEs.

Last, for the enterprise community, we offer a unified type of account, the most basic threshold is the cost of joining the platform, which we set at about 12 dollars. Entrepreneurs joining the platform will have access to a basic level of expert advice and the freedom to ask questions and gather information, with no direct follow-up fees. After joining, entrepreneurs will be able to freely access the opinions and comments from the primary expert accounts. This fee will serve as the basis for the implementation of the Expert Effect and is an important means of recovering our upfront costs. When entrepreneur accounts want to collect expert comments and opinions, they can directly pay for the experts, who will set their own price, and the platform will only give the basic lower and upper limits based on the degree of professionalism rating.

In addition, the experts' opinions will also be used as the basis for public discussion, and the evaluation of experts'

opinions will be done by both senior expert accounts and junior expert accounts. The approval and disapproval of the senior accounts and the enterprises certified by the platform as having sufficient capacity to participate in the expert opinion will be more valuable in the system's judgement. As for professional ratings, the professional rating of a business will be determined by a combination of the business's staff size, asset size and management model.

As for expert accounts, the rating, in addition to the initial rating at registration, is determined by the support rate, number and value of the specialized advice given by the expert on the platform. The more expert advice is published, the higher the support rate each time the expert advice is given, and the higher the amount of payment that can be attracted to the enterprise are all ways to improve the expert rating. The improvement of expert rating can also increase the amount of bounty for expert consulting, and the higher income will ensure the quality of expert opinions in the initial period and guarantee the user viscosity of the expert user group. Due to the high viscosity of the expert group, the entrepreneurial group under the nepotism effect can also maintain a very high viscosity. Excellent solutions can form a new channel for platform promotion, forming a closed loop in the middle and late stages.

5.4 Pre-platform attraction

Due to the construction of the platform framework and the implementation of specific functions, the introduction of experts in the early stage and the promotion of publicity is particularly important. The first part we will do is to clarify the value proposition. For the expert community, there are three aspects of our platform are very attractive. The first aspect is academic implementation, which is a clear boost to their own research, and it is very attractive to the experts that they can use our platform to promote their further in-depth research. The second aspect is the economic aspect, as the ability to get a return through the translation of academic results to support further research is an integral part of the academic cycle. This is therefore

a value proposition that appeals to the expert community. The third part is the exchange of scholars, so that academic communication become more convenient and smooth, and a large number of scholars can get together to discuss ideas and innovations, which is a type of academic progress. Because on the platform, academic communication is no longer confined to theories as usual, but can be discussed in a certain real-life scenario, which will be a trendy way. On the other hand, due to the initial establishment of the platform, high returns to attract some famous scholars to enter and promote, to achieve the target effect is also our key consideration means. For the entrepreneur group, our main promotion means in the early stage is divided into three parts.

1. The first part is the combination of ground promotion and government promotion. In the special situation of China, government promotion will become a very effective and efficient promotion method. The companies and products promoted by the government tend to get the response of the majority of companies, and it is a rare opportunity for SMEs to try our products to become government demonstration companies. Therefore, government promotion makes it possible for us and SMEs to co-operate and win-win. Meanwhile, government promotion is also very important in attracting experts in China. Combined with the government official, the ground promotion can also be very efficient.

2. The second part is to show the successful cases of the government pilot in the early stage of the project, which can be combined with the promotion in the first part to achieve the effect of typical driving. This channel can help the majority of SMEs who are new to our platform to quickly recognize and understand the role and functions of our platform, and be able to make improvements through our platform.

3. The third part is the mainstream online promotion methods, including the use of Mailchimp and other tools for email marketing, Google and other sites of paid advertising, microblogging and other social media marketing, combined with big data analysis can be achieved for SMEs and experts and scholars group targeted delivery.

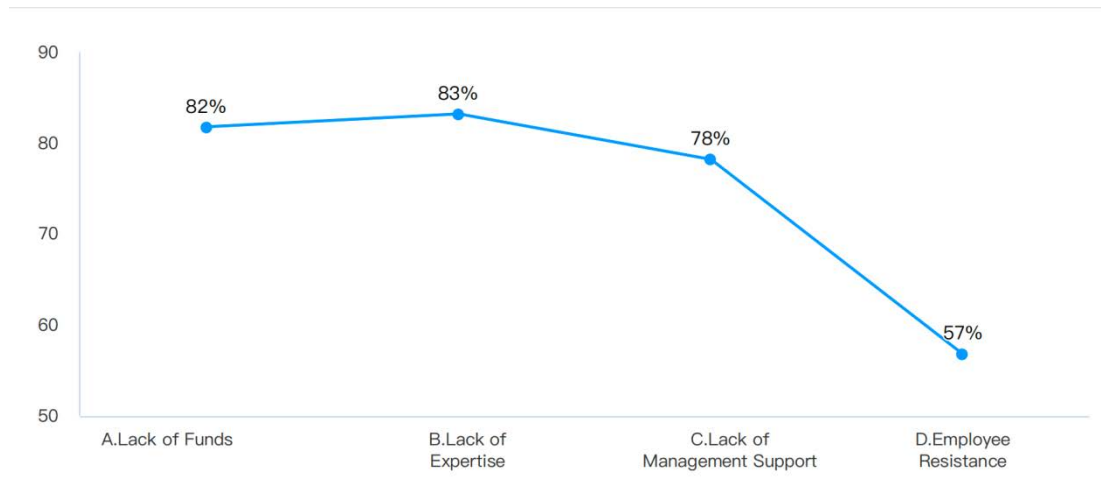


Figure 4: Main Problem

The results of the data survey on the barriers to business improvement showed that 83.21 per cent of businesses face a lack of professional guidance, which proves the feasibility of our targeted outreach. At the same time, 78.21 per cent of enterprises face the factor of insufficient management support, which confirms the need for government assistance in promotion.

6. Future Improvements

Based on the data available and the initial market exploration, our product has gone through initial internal testing, and during the process of finding pilot companies for us to target for testing, we have found quite a few issues. First and foremost is the issue of response efficiency. Since the time difference between expert scholars and entrepreneurs is not guaranteed to be a perfect match and there can be large differences in access time habits, we will be working to address this issue. In the future, we may consider the direction of developing a mobile-end website, or a mobile device-end application to solve the problem of communication efficiency. At the same time we will end up in the mobile end of the problem will involve market innovation. For the practice of innovative ideas of scholars in this section we will give more resources inclined, such as the home page for advertising push, a special interface for this project, as well as bounty programmes and so on. We plan to give certain benefits to those who are brave enough to try out the pilot enterprises, such as free senior expert consulting, long-term membership fee reduction, and P2P data feedback collection. On the other hand, innovation in more directions is another topic. For the Cash Cows product market, which has a large market size, we will maintain a certain investment to ensure the stability of cash flow, but will put more energy into research and development of new blue ocean market. We will continue to

collect customer feedback data to ensure product updates and stability, as well as find more existing problems and possible innovations. These will be the points we will start to solve in the future, but also our summary of user pain points, both for the future development, but also inherited our gains in the development of the platform.

7. CONCLUSION

In the process of developing our platform, we are actually further exploring the existing red ocean market, and trying to develop a new blue ocean market - that is, the application market from academia to practice. In our study of this market, we discovered a number of existing market problems, including the inability of individual firms to handle the large market of consulting assignments on their own, the lack of access to information for many SMEs, and the transition of most consulting platforms, which resulted in an empty window in the market. Our solutions to these problems and our innovations in the market not only fill the gaps in the market, but also open up new markets. The exploration of the theoretical and practical aspects of scholars has opened up a whole new field for more in-depth academic exchanges and academic practice in the future, and has also made it possible to apply the valuable academic experience of the majority of scholars. In the end, this will be a full integration of the old market with the new, as well as a brand-new opening up of the academic and corporate fields. Our team also believes that there are more in-depth and worthwhile research in this field waiting for us to discover, which is also the goal we will be committed to in the future. [12]

AUTHORS' CONTRIBUTIONS

Jintang Zhang: Thesis writing, data and model analysis, product planning, design concepts, data collection, funding.

Hongyi Zhang: Data collection, abstract, summary, literature review, funding.

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